E. Barbaroux,

Pipe Coupling.

No. 51,910. Patented Jan. 9, 1866.

Fig. 1

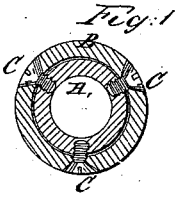
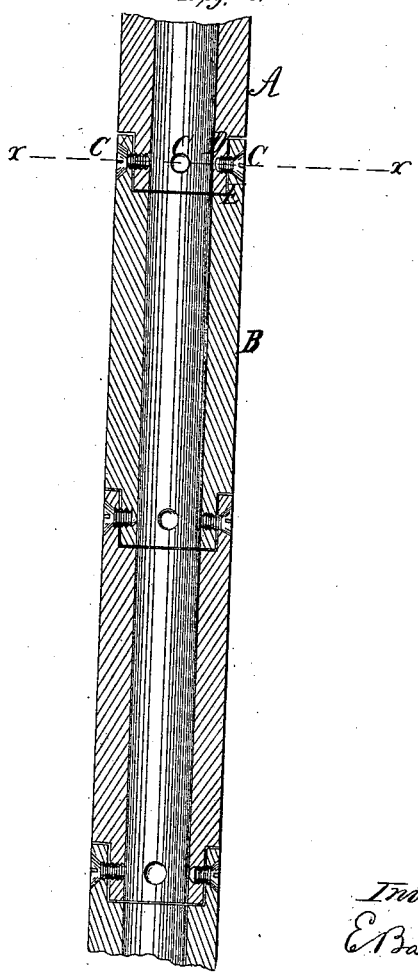


Fig. 2.



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UNITED STATES PATENT OFFICE.

E. BARBAROUX, OF LOUISVILLE, KENTUCKY.

IMPROVED PIPE-COUPLING.

Specification forming part of Letters Patent No. **51,910**, dated January 9, 1866.

To all whom it may concern:

Be it known that I, E. BARBAROUX, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Improvement in Driving-Pipe for Oil and other Wells; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a cross-section of a portion of a pipe made according to my invention, the section being taken on the line *x* through the joint. Fig. 2 is an axial section of the pipe.

Similar letters of reference indicate like parts.

This invention relates to a new mode of making the joints of cast-iron driving-pipe, sometimes called "soil-pipe," for sinking oil and other deep wells; and it consists in turning off the lower end of one section on the outside, so as to form a straight shoulder thereon, and boring out the upper end of the next section below to an equal depth and thickness, so as to make an inside shoulder within that section. When these sections are brought together the shoulders are to come in close contact, and the joints of the sections are thus made flush both inside and outside. The joint is then secured by screws which connect the overlapping ends of the sections.

The pipe used for the driving or soil pipe of oil-wells is usually of five or six inches inside diameter, and the metal one inch thick. This proportion is not preserved in the accompanying drawings, but the thickness of the metal sides is exaggerated to show the joint with greater clearness.

In sinking an oil or other deep well, the soil or driving pipe is first driven down through the soil to the solid rock, one section being added to another section as the pipe is sunk, until the lower end of the lowest section rests on the rock, when the earth is removed from within the pipe. When the soil-pipe is to be removed the removal of the uppermost section exposes those below to retention in the well from the caving in of the earth and other causes, and it is not often possible to remove all the sections.

My invention will enable all the sections to be withdrawn, because the sections are each firmly connected to each other, and there is no other hinderance to their removal than the friction on their sides from the surrounding earth.

A designates one section of a driving-pipe, and B the section next below it. The section A is turned down on the outside of its lower end, as seen at D, leaving a square shoulder about it, while the inside of the adjoining end of section B is bored or cut out to a like depth and thickness, as seen at E. These ends are then placed together and secured by screws C, three in number in this example, which pass through both the overlapping ends of said sections. The heads of the screws are countersunk in the outer side of the joint, and the joint is flush both inside and outside. All the sections are prepared in the like manner, and are connected as fast as the pipe is driven. Thus the sections are firmly united to form a continuous pipe, which may be withdrawn, when it is desired to save the pipe, without leaving any of its sections behind.

In order to avoid any danger of bursting the ends of the pipes which are bored out, as at B, the said ends may be recessed to receive a light wrought-iron band to be shrunk on. These bands need not be more than one inch wide and one-eighth of an inch thick, and can be faced off while the pipe is being bored and turned, so as to fit snug and come in close contact with the corresponding shoulder on the other pipe.

I claim as new, and desire to secure by Letters Patent—

A soil or driving pipe for oil and other deep wells whose sections are united to each other, substantially in the manner and for the purpose above described.

E. BARBAROUX.

Witnesses:

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